# Food availability, litter size, and effect of removal versus sterilization and return with and without colony management required

Kate Hurley, DVM, MPVM, Dip. ABVP (Shelter Medicine)

UC Davis Koret Shelter Medicine Program Sheltermedicine@ucdavis.edu

## Unexpected results

# Effects of low-level culling of feral cats in open populations: a case study from the forests of southern Tasmania

Billie T. Laze

ASchool of Biolo BDepartment of Tas. 7000, Aus CPO Box 120, R

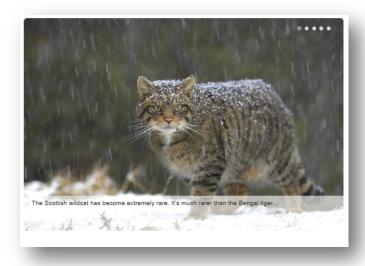
"Contrary to expectation, the relative abundance and activity of feral cats increased in the cull-sites, even though the numbers of cats captured per unit effort during the culling period declined. Increases in minimum numbers of cats known to be alive ranged from 75% to 211% during the culling period, compared with pre- and post-cull estimates."

#### Survivors

Less than 1% of >100,000 cats at TNR clinics euthanized for humane reasons

Body condition score 5/9 on shelter intake

Annual survival of semiowned cats up to 90% (un-owned ~50%)





### Survivors

Table 2. Feral cat estimates in Canada from media reports, in relation to 2006 human population, latitude, and January temperature.

Location	Feral Cat Estimates (# of estimates) <sup>†</sup>	Midpoint (approx.)	Human Pop'n (1000s) 2006 Census <sup>‡</sup>	Feral Cats / 1000 Persons	Latitude (N) §	January Avg Temp (C) <sup>§</sup>
Vancouver	Tens of thousands (1)	25,000	2117	12	49.2	3.3
Toronto	20,000 to 500,000 (4)	200,000	2503	80	43.7	-5.3
Windsor	25,000 to 50,000 (2)	35,000	383	91	42.3	-4.5
Regina	25,000 (1)	25,000	221	113	50.4	-16.2
Montreal	100s of thousands (1)	250,000	1854	135	45.5	-10 3
Winnipeg	50,000 to 200,000 (4)	// . 1	•		. •	

<sup>†</sup>Sources: Stray Cats a Big Problem 2008, Horan 2009, Botelho 2011, Cat Populations Increase... 2011, Ormsb Winnipeg's Feral Cat Population Grows 2011; P. Curry <sup>‡</sup>Source: Statistics Canada 2007

1.6 Million (1)

110,000 (1)

Province of Quebec

Halifax

<sup>§</sup>Source: Environment Canada 2011; averages used if n

"there is no apparent relationship between estimates of feral cats and latitude or January temperature in southern Canada (Table 2), and feral cat numbers may be significant in parts of Alaska"

Blancher, P. (2013). "Estimated Number of Birds Killed by House Cats (Felis catus) in Canada." <u>Avian Conservation and Ecology 8(2).</u>

#### At risk

## Reproductive capacity of free-roaming domestic cats and kitten survival rate

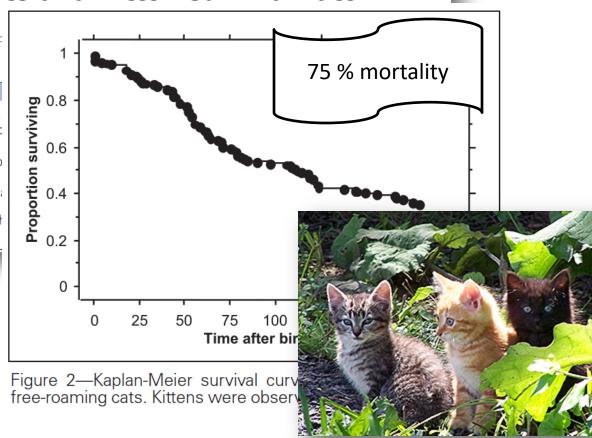
Felicia B. Nutter, DVM; Jay F

**Objective**—To determine reproductive naturally breeding free-roaming domestic ten survival rate.

**Design**—Prospective cohort and retrosp sectional study.

**Animals**—2,332 female cats brought to a return clinic for neutering and 71 female kittens comprising 50 litters from a colferal cats in managed colonies.

Procedure Data collected for all cate in



#### Create risk

- Naïve immune systems
- More likely to suffer primary infection, shed at higher levels
- Roundworm, hookworm, Bartonella ("Cat Scratch Fever"), Toxoplasma



"Animals older than 1 year are also preferable because younger dogs and cats are much more likely to carry disease."

## Litter bearing mammals

Wildlife Damage Management Conferences -- Proceedings

Wildlife Damage Management, Internet Center for

1-1-2005

Demographic and Spatial Responses of Coyotes to Changes in Food and Exploitation

Eric Gese

USDA, APHIS, Wildlife Services, National Wildlife Rese

Removals brought about a drastic reduction in pack size and a corresponding decrease in density. However, both pack size and density rebounded to pre-removal levels within 8 months post-removal. .. Accounting for both changes in prey abundance and coyote density, litter size was significantly related to total prey abundance/coyote. With increasing prey and reduced coyote density, mean litter size doubled in the removal area compared to pre-removal levels.

## Litter bearing mammals



#### Survival, Fecundity, and Movements of Free-Roaming Cats

Author(s): PAIGE M. SCHMIDT, ROEL R. LOPEZ, BRET A. COLLIER

Source: Journal of W Published By: The W

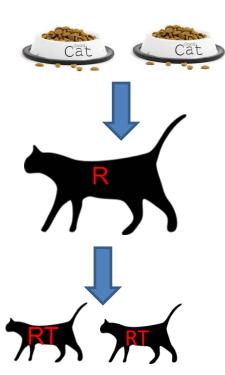
DOI: http://dx.doi.org

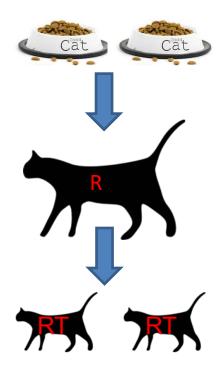
URL: <a href="http://www.bic">http://www.bic</a>

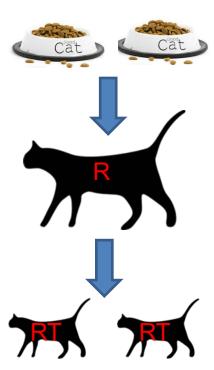
We routinely observed owned females in the study area with 3–4 kittens approximately 12 weeks of age (P. M. Schmidt, Texas A&M University, unpublished data), which leads us to speculate that owned females that are not spayed experience higher fecundity rates than reproductively viable, unowned females. Other studies report high fecundity among unowned cats fed supplementally (Scott et al. 2002, Nutter et al. 2004).

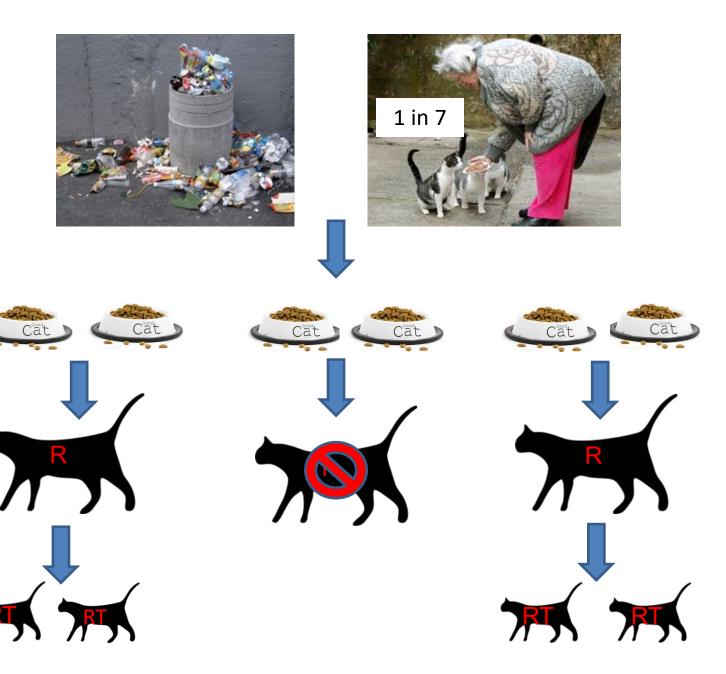


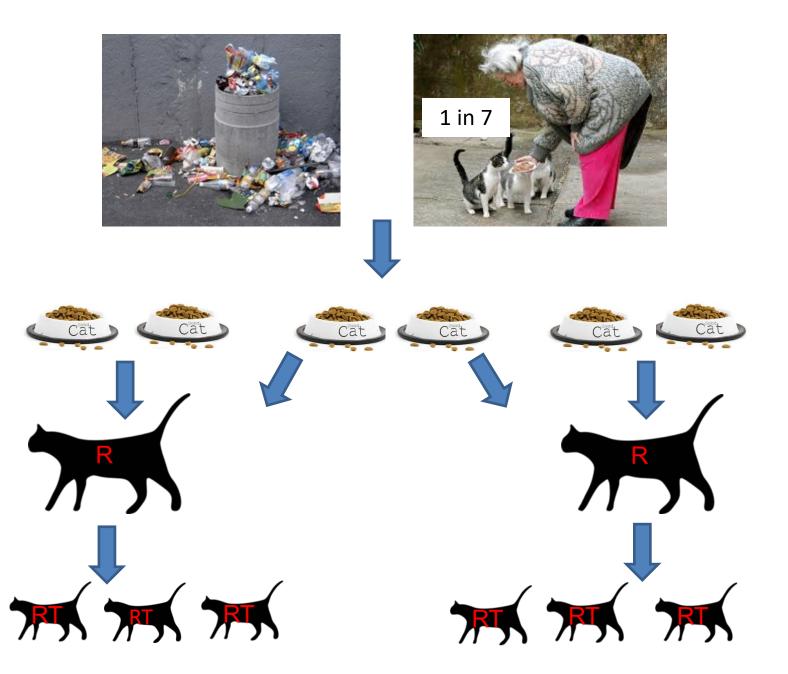


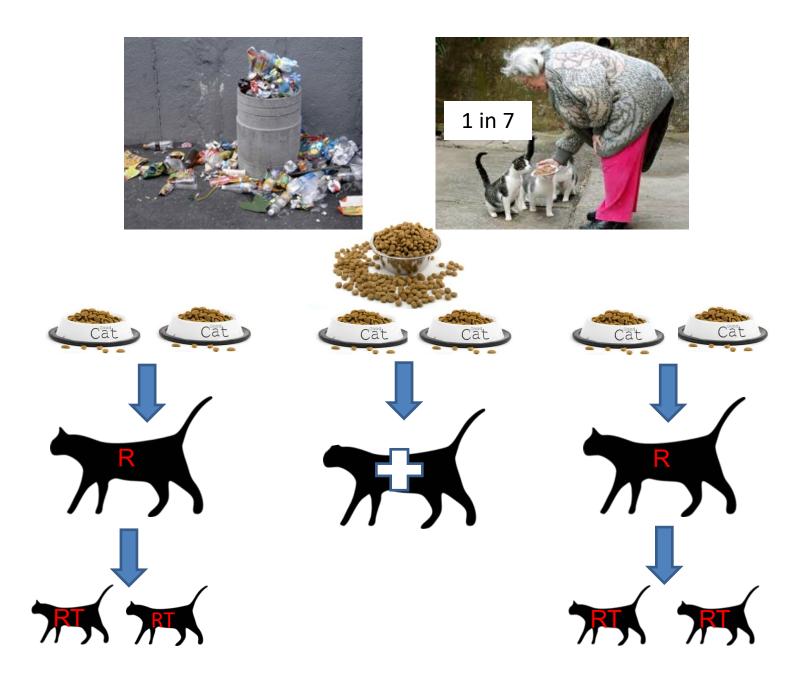






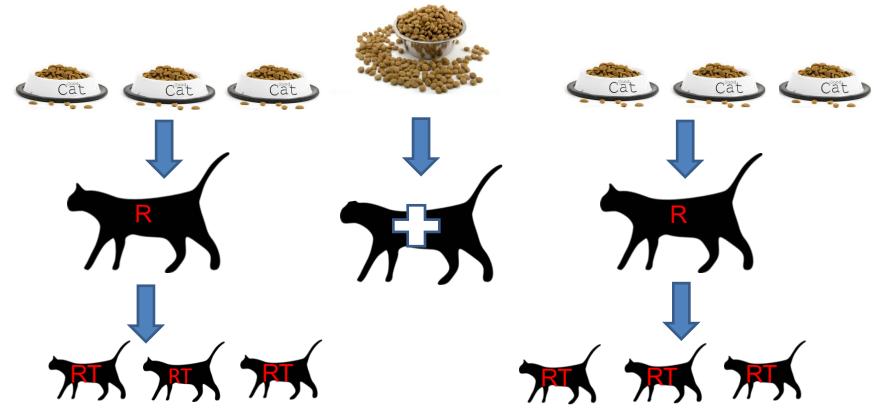


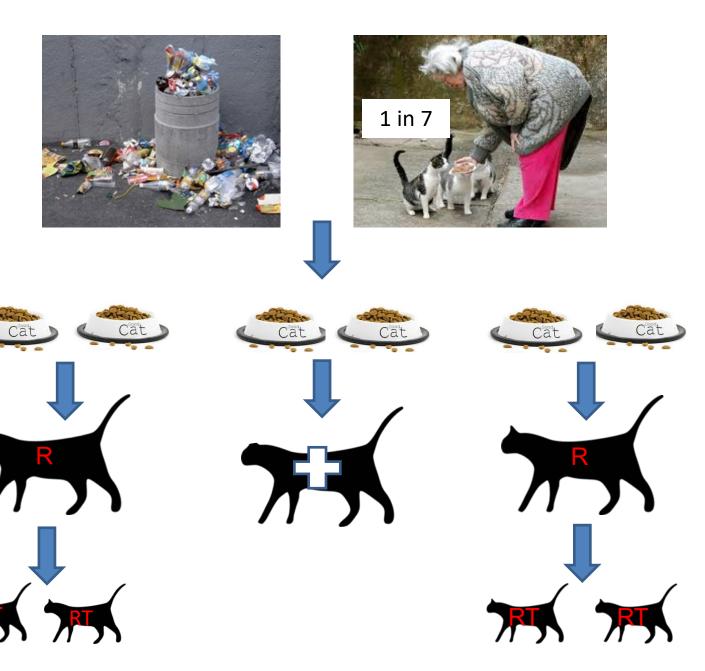












Study of the effect on shelter cat intakes and euthanasia from a shelter neuter return project of 10,080 cats from March 2010 to June 2014

Karen L. Johnson<sup>1</sup> and Jon Cicirelli<sup>2</sup>

- National Pet Alliance, San Jose, CA, United States
- <sup>2</sup> San Jose Animal Care and Services, San Jose, CA, United States
- Euthanasia down 75%
- Euthanasia due to URI down 99%
- Intake (cat and kitten) down 29%
- Cats picked up dead down 20%

## Which is better for communities?

#### Unexpected results

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